

the main points of difference. The interorbital space has a slight longitudinal groove, the operculum is not longer than deep, and has an angular protuberance beneath, the distance from the posterior margin of the operculum to the root of the pectoral is much greater than to the anterior margin of the orbit, there is no black longitudinal band, and the lateral plates of the cuirass differ both in size and number. According to my estimate also there is a considerable difference in the formula of the fins, that of *A. strigata* Gunth. being D.  $\frac{3}{10}$ , A. 12, C. 10, P. 12, V. 4, while that of the present species is D.  $\frac{4}{10}$ , A. 10, C. 10, P. 11, V. 4.

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#### ON MACRODONTISM.

BY N. DE MIKLUCHO-MACLAY, Hon. Memb. Linn. Soc. N. S. W.

#### Plate 18.

The copy in "Nature" (Vol. XVI., No. 404) of the sketch of an Islander of Tauï\*, which I had sent in 1876 to Professor R. Virchow in Berlin, is such a perfect caricature that I am induced, in consideration of the great anthropological interest of the subject, to lay before the Society a correct lithograph of my original sketch, with some remarks on this peculiarity, which I shall call *Macrodontism* (μακροδοντισμός).

I commence with an extract from my first letter on this subject to Professor Virchow, which has been kindly translated into English by Mr. C. L. Sahl, Imperial German Consul in Sydney.

"15 June, 1876.

"Archipelago Ninigo (or Echiquier),

"1° 23' south lat., 144 east long.

"Going south after my visit to Western Mikronesia, I came to the Admiralty Islands, which are as yet little known. I continued there my anthropological studies, and devoted my attention to an important anatomical peculiarity of the natives (who belong to the Melanesian Race) and obtained some unexpected

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\* Tauï or Admiralty Islands.

results. I observed a considerable irregularity of the teeth, which are mostly very protruding, and I soon found out that it was owing to the enormous size of those of the front row. The sketch herewith shows certain parts of the mouth in its natural size. Generally it was the incisors of the upper jaw which were enlarged, but sometimes those of the lower jaw showed the same peculiarity; in some individuals the canine teeth seemed also enlarged. The teeth were thick in proportion, and as seen from above (or from below) they formed a sort of grinding surface, which sometimes even was tuberculate.

"These people had a great aversion to my measuring their teeth or making a drawing of them, some of them I persuaded through presents, others through surprise, where their astonishment and perhaps fear left them without defence in my hands; but only for a short time; they missed no opportunity to escape, and showed such an impatience that the measuring and drawing were made very difficult. Wherever I could I lost no opportunity to measure as exactly as possible, but I regret that my examination could not be a complete one. I have added the measurements to my sketches, but must observe that I had not the opportunity of sketching the most characteristic individuals; I had to content myself with the good natured and timid ones; some very magnificent representatives of these large-teethed people (of whom I observed several dozen on the Admiralty Islands, and on the Island of Agomes or Hermit Island) refused very decidedly to have their teeth sketched or even measured.

"To some of these people, whose large teeth were quite loose and could easily have been extracted with little pain, I offered one and even two axes for one big tooth; but even the desire to obtain the axes was not strong enough against the firm superstition that in that case the person would die.

"Later on I succeeded at the Island of Agomes in obtaining a piece of a big tooth from a man, who, having no big teeth of his own, very likely was selling that of a relation.

"These large-teethed people do not form a distinct tribe, they are to be found distributed amongst the population. Some are, indeed, magnificent specimens; I have measured some incisor

teeth with a crown of 22 m.m. length, others also of incisors 19 m.m. breadth, the thickness of some of these was not less than 11 m.m.

"On account of the continuous chewing of betel and penang,† the enamel of the teeth is covered with a black crust. In some instances when the mouth was closed the teeth protruded between the lips.

"I have not only met men with such teeth, but women as well, but more seldom. The teeth of some of the boys promised in time not to be behind in size those of their older countrymen.

"So far, I have found these large-teethed Melanese only on the Admiralty Islands (on the south and north-west) and on the Island of Agomes.

"When I saw these people with protruding teeth around me I was reminded of the *Orang Gargassi* of the Malayan Peninsula,‡ and thought involuntarily of the hypotheses, theories, etc., etc., which would have been the result if a piece of skull with these enormous teeth had been found in any recent geological formation."

Since this letter I have sent two fuller reports to Europe about "Macrodontism," one to the Imperial Russian Geographical Society in St. Petersburg; and a second, with a number of sketches of different sets of teeth of Islanders of Tauï and Agomes, to the President of the Anthropological Society of Berlin. Those who interest themselves especially in these anatomical specialities I refer to these reports. I will only add here, that my attention being roused by the observation of the large teeth of the Admiralty Islanders, I lost no opportunity to observe the teeth of all the different races of people that I subsequently during my travels came in contact with. I then convinced myself that "Macrodontism" occurs to a certain extent with *other* races, though I observed nowhere such remarkably big toothed people, and such numerous instances of this peculiarity, as on the Islands of Tauï and Agomes.

† It is not improbable that other vegetable material, which we do not as yet know, is also used for chewing by the inhabitants of Tauï.

‡ In many places of the Malay Peninsula I have heard of the existence of curly-haired people with two *protruding teeth*, and these *Orang Gargassi*, as they were called, are supposed to live in the mountains between Kedah and Singoro.

During my second stay (1876-77) on the *Maclay-Coast of New Guinea* I found several individuals who had some teeth of abnormal size, and which, like those on *Tau*i and *Agomes*, presented no pathological condition. I met three or four of such people amongst the inhabitants of the archipelago of the "Content men," also in some of the mountain villages of the *Maclay-Coast*. In *Zamboanga* on the S.W. point of the Island *Mindanao* (in Jany., 1878), I met a native (whose ancestors, as he informed me, were *Bugis*) whose teeth of considerable size were very remarkable.

In 1878 I saw in *Singapore* a Chinese Coolie in the street, whose large teeth were well shown by his hearty laugh, and which attracted my attention. Owing to my illness I was prevented from sketching or measuring this specimen.

Amongst my older notes I found a memo. that in 1873, on the Island *Tidore*, I saw a Malay with remarkably large teeth; in the same year (1873) I also saw a Chinese in *Canton* with very large teeth.

In conclusion, I will remark that the opinion which I have formed (and which I have communicated in my second report to the Imperial Geographical Society of Russia in 1876) is that *Macrodontism* (or hypertrophy of the dentinum) should rank in the same category as the elongation of the nymphæ, and the accumulation of fat about the buttocks and sacrum in the *Hottentot* woman, and in a similar manner as this peculiarity of constitution, *Macrodontism* is not to be met amongst *all* individuals.

That this *Hypertrophy of the Dentinum* stands in close relation with the food is without doubt; but during my comparatively short stay in the islands I could not discover the particular diet which causes this anomaly, or might have caused it, as it is certain that the peculiarity is hereditary.

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#### EXPLANATION OF PLATE 18.

(1) Sketch of the laughing *Soyan* ♂ about 25 years old, an inhabitant of the village of *Pubi*, on the south-east coast of the

large island of the Taui Group. In his fine curly hair (*chevelure à grain de poivre*) is worn a roughly cut wooden comb. In a small artistically netted satchel around his neck is seen the *Ovum Ovulum*, frequently the only dress of the men (*tanquam glandis scutellum*).

(2) Half-opened mouth of the same, in profile and natural size (measured very carefully). The cartilage of the nose is pierced.

(3) Mouth of the same, *en face*,  $\frac{3}{4}$  natural size.

(4) Middle incisor teeth of the same man, carefully measured.

(5) One of the large incisors of another man from the same village.

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On the GOSHAWK from Port Moresby, *Astur cruentus* of Salvadori and Sharpe (*nec* Gould).

By E. P. RAMSAY, F.L.S., &c.

*ASTUR SHARPEI*, *sp. nov.*

*Astur cruentus*, *Salvad*, (*nec* Gould) *Ann. Mus. civic. Genov. VII.* p. 806; *Urospizias cruentus*, *id. op. cit. IX.* p. 11., *Astur cruentus*, *Sharpe* (*nec* Gould), *Journ. Linn. Soc. Zool. XIII.* p. 488., (*Descrip*).

In the Journal of Linnean Society,—Zool. XIII. p. 488—Mr. R. B. Sharpe refers to the Port Moresby Goshawk, as *Astur cruentus*, of Mr. Gould, thereby making it identical with the Western Australian species. Mr. Sharpe gives a very good description of the bird, but does not appear to notice the difference in the tarsi and the *extent of the bare portion*, which in the West Australian bird is quite as long as in *A. approximans*, but in the Port Moresby bird, *very much shorter*—with respect to the rufous collar, I have N. S. W. specimens of *A. approximans* which have a quite as well defined rufous band round the neck, as in any of the West Australian or Port Moresby birds—but these latter are shorter and heavier-built birds, and have comparatively shorter tarsi, and the bare portion shorter, equal to about one-third of its total length, the toes are shorter and the feet smaller and weaker.